WHAT IS CLAIMED IS:

1. A composition of matter comprising a supramolecular complex comprising as constituents a block copolymer, having at least one nonionic, water soluble segment and at least one polyionic segment, and at least one charged surfactant having hydrophobic groups, the charge of said surfactant being opposite to the charge of the polyionic segment of said block copolymer, the constituents of said complex being bound by interaction between said opposite charges and between surfactant hydrophobic groups, and with the proviso that when said complex comprises an anionic surfactant having a biological activity, said anionic surfactant has a net charge of no more than about 10.

2. A composition as claimed in claim 1 wherein the ratio of the net charge of said surfactant to the net charge of the polyionic segment present in said block copolymer constituent of said complex is between about .01 and about 100.

3. A composition as claimed in claim 2, wherein said charge ratio is between about 0.1 and about 10.

4. A composition as claimed in claim 2, wherein the polyionic segment of said block copolymer is polyanionic.

5. A composition as claimed in claim 4, wherein the nonionic segment of said block copolymer is selected from the group consisting of polyetherglycols, copolymers of ethylene oxide and propylene oxide, polysaccharides, homopolymers and copolymers of vinyl compounds selected from the group

consisting of acrylamide, acrylic acid esters, methacrylamide, methacrylic acid esters, N-(2-hydroxypropyl) methacrylamide, vinyl alcohol, vinyl pyrrolidone, vinyl triazole, or the N-oxide of vinylpyridine, polyorthoesters and polyamino acids.

6. A composition as claimed in claim 4 in the form of vesicles.

7. A composition as claimed in claim 4, wherein said polyanionic segment is selected from the group consisting of polymethacrylic acid and its salts, polyacrylic acid and its salts, copolymers of methacrylic acid and its salts, copolymers of acrylic acid and its salts, heparin, poly(phosphate), polyamino acid, polymaleic acid, polylactic acid, nucleic acid or carboxylated dextran.

SUB A1

8. A composition as claimed in claim 4, wherein said polyanionic segment is a homopolymer or a co-polymer prepared from a monomer which polymerizes to form a product with carboxyl pendant groups, said monomer being selected from the group consisting of acrylic acid, asparatic acid (amino acid), 1,4-phenylenediacrylic acid citraconic acid, citraconic anhydride, trans cinnamic acid, 4-hydroxy-3-methoxy cinnamic acid, p-hydroxy cinnamic acid, trans-glutaconic acid, glutamine acid (amino acid), itaconic acid, linoleic acid, linolenic acid, methacrylic acid, maleic acid, maleic anhydride, mesaconic acid, trans-β-hydromuconic acid, trans-trans muconic acid, oleic acid, ricinoleic acid, 2-propene-1-sulfonic acid, 4-styrene sulfonic acid, trans-traumatic acid, vinylsulfonic acid, vinyl phosphate acid, vinyl benzoic acid, vinyl glycolic acid.

9. A composition as claimed in claim 4, wherein said surfactant is selected from the group consisting of lipophilic quaternary ammonium salts, lipopolyamines, lipophilic polyamino acids, lipophilic primary-, secondary-, tertiary- and heterocyclic amines, lipophilic imidazoles, lipophilic piperidinium salts, lipophilic quinaldinium salts, lipophilic azonium and azolium salts, pH-sensitive cationic lipids, dicationic bolaform electrolytes or a mixture of said surfactants.

10. A composition as claimed in claim 4, further including a nonionic surfactant.

SUB A2

11. A composition as claimed in claim 10, wherein said nonionic surfactant is selected from the group consisting of dioloeoyl phosphatidylethanolamine, dioleoyl phosphatidylcholine, or a mixture of said nonionic surfactants.

12. A composition as claimed in claim 2 wherein the polyionic segment of said block copolymer is polycationic.

13. A composition as claimed in claim 12 in the form of vesicles.

14. A composition as claimed in claim 12, wherein said polycationic segment is selected from the group conisting of polyamino acid, alkanolamine esters of polymethacrylic acid, polyamines, polyalkyleneimines, polyvinyl pyridine and the quaternary ammonium salts of said polycationic segments.

SUB A3

15. A composition as claimed in claim 12, wherein said anionic surfactant is selected from the group consisting of alkyl sulfates, alkyl sulfonates, fatty acid soaps, salts of hydrox-, hydroperoxy-, polyhydroxy-, epoxy- fatty acids, salts of mono- and polycarboxylic acids, prostanoic acid and prostaglandines, leukotriens and lipoxines, alkyl phosphates, alkyl phosphonates, lipids, sodium-dialkyl sulfosuccinate, n-alkyl ethoxylated sulfates, cholate and desoxycholate of bile salts, perfluorocarboxylic acids, fluoroaliphatic phosphonates, fluoroaliphatic sulphates.

16. A composition as claimed in claim 1, wherein said surfactant is a biologically active agent.

17. A composition as claimed in claim 16, wherein said biologically active agent has a molecular mass of less than about 2000.

18. A method for preparing a composition of matter as claimed in claim 1, in the form of vesicles, said method comprising mixing a block copolymer, having at least one nonionic, water soluble segment and at least one polyionic segment, and a charged surfactant having hydrophobic groups, the charge of said surfactant being opposite to the charge of the polyionic segment of said block copolymer, the ratio of the net charge of said surfactant to the net charge of the polyionic segment present in said block copolymer being between about .01 and about 100, and with the proviso that when said surfactant is a biologically active agent, said agent has a net charge of no more than about 5.